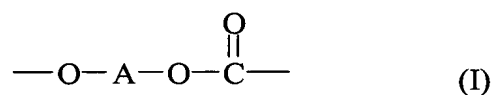


CLAIMS:

We claim:

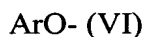
1. A polycarbonate composition comprising chloride, sulfate, phosphate or a combination of two or more of the foregoing ionic species in an amount of zero to about 100 parts per billion based on the total weight of the polycarbonate; and phenol, carbonic diester, aromatic dihydroxy compound or combination of two or more of the foregoing organic compounds in an amount of zero to about 500 parts per million by weight based on the total weight of the polycarbonate; wherein the polycarbonate has a weight average molecular weight of about 40,000 to about 90,000 dalton as determined by gel permeation chromatography using polystyrene standards and a melt volume rate of about 1 to about 35 cubic centimeters 10 minutes when measured at about 300°C with a force of about 1.2 kilograms.

2. The composition of Claim 1 wherein the polycarbonate comprises recurring structural units the formula (I);



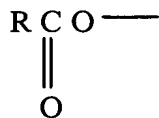
wherein A is a divalent aromatic radical of bisphenol A.

3. The composition of Claim 1 wherein about 1 to about 95% of the polycarbonate molecular terminals are terminated with an aryloxy terminal group represented by the formula (VI)



wherein Ar represents an aromatic hydrocarbon group containing 6 to 50 carbon atoms.

4. The composition of Claim 1 wherein about 1 to 95% of the polycarbonate molecular terminals are terminated with an aliphatic monocarboxy terminal group represented by the formula (VII)



(VII)

wherein R represents a straight chain or branched alkyl group containing 10 to 30 carbon atoms.

5. The composition of Claim 1, wherein the polycarbonate has an amount of branching points less than 5,000 parts per million by weight based on the total weight of polycarbonate.

6. The composition of Claim 1, wherein the polycarbonate has an amount of hydroxy groups of about 50 to about 10,000 parts per million by weight based on the total weight of the polycarbonate.

7. The composition of Claim 1, wherein the amount of chloride, sulfate, phosphate or a combination of two or more on the foregoing ionic species is zero to about 50 parts per billion by weight based on the weight of the polycarbonate.

8. The composition of Claim 1, wherein the amount of phenol, carbonic acid diester, dihydroxy aromatic compound or combination of two or more of the foregoing organic compounds is zero to about 350 parts per million by weight based on the total weight of the polycarbonate.

9. A method of making a polycarbonate composition comprising reacting a carbonic acid diester and an aromatic dihydroxy compound in the presence of a catalyst at a first temperature of about 210°C to about 290°C and a first pressure of about 10 to about 200 mm Hg to form an oligomer containing mixture; reacting the oligomer containing mixture at a second temperature of about 270°C to about 315°C and a second pressure of about 0.075 to about 7.5 mm Hg to form a polycarbonate containing mixture; adding catalyst quenching agent to the polycarbonate containing mixture and devolatilizing the polycarbonate mixture under vacuum conditions.

10. The method according to Claim 9, wherein the carbonic acid diester comprises a diester selected from the group consisting of diphenyl carbonate, bis(methyl salicyl) carbonate, ditolyl carbonate, bis(chlorophenyl) carbonate, m-cresyl carbonate, dinaphthyl carbonate, bis(diphenyl) carbonate, diethyl carbonate, dibutyl carbonate, dicyclohexyl carbonate, and a combination of at least two different carbonic acid diesters.

11. The method according to Claim 9, wherein the aromatic dihydroxy compound comprises a bisphenol selected from the group consisting of bisphenol A, resorcinol, substituted resorcinol compounds, hydroquinone, substituted hydroquinones, as well as combinations comprising at least one of two or more of the foregoing bisphenol compounds.

12. The method according to Claim 9 further comprising mixing the carbonic acid diester, catalyst and aromatic dihydroxy compound at a temperature of about 80°C to about 200°C and atmospheric pressure.

13. The method according to Claim 9, wherein the aromatic dihydroxy compound comprises up to about 100 parts per billion by weight metal based on the total weight of the aromatic dihydroxy compound.

14. The method of Claim 9 wherein the metal is selected from the group consisting of iron, nickel, chromium, titanium, manganese, and combinations of the foregoing.

15. The method according to Claim 9, wherein the aromatic dihydroxy compound comprises up to about 200 parts per billion by ions based on the total weight of the aromatic dihydroxy compound.

16. The method according to Claim 15, wherein the ions are selected from the group consisting of sulfate, chloride, phosphate and combinations of the foregoing.

17. The method according to Claim 9, wherein the carbonic acid diester comprises up to about 200 part per billion by weight metal based on the total weight of the carbonic acid diester.

18. The method of Claim 17 wherein the metal is selected from the group consisting of iron, nickel, chromium, titanium, manganese, and combinations of two or more of the foregoing.

19. The method according to Claim 9, wherein the carbonic acid diester comprises up to about 200 part per billion by weight ions based on the total weight of the carbonic acid diester.

20. The method according to Claim 19, wherein the ions consist essentially of sulfate, chloride, phosphate and combinations of the foregoing.

21. The method according to Claim 9, wherein the catalyst comprises an alkali metal catalyst or an alkaline earth metal catalyst and a beta catalyst.

22. The method according to Claim 9, wherein the catalyst comprises an alkali or alkaline earth metal compound in the amount of about 10^{-8} mole to about 2×10^{-6} mole per one mole of the aromatic dihydroxy compound.

23. The method according to Claim 9, wherein catalyst comprises a basic compound and the amount of the basic compound is about 1×10^{-6} to about 1×10^{-1} mole per one mole of the aromatic dihydroxy compound.

24. The method according to Claim 9, wherein catalyst quenching agent is a derivative of an acid containing a sulfur atom.

25. The method according to Claim 9, wherein the catalyst quenching agent is employed in an amount of about 0.05 to about 100 parts per million by weight based on the total weight of the polycarbonate.

26. The method according to Claim 9, wherein devolatizing occurs in a vented extruder.

27. The method according to Claim 9, wherein reacting the oligomer containing mixture occurs in two sequential reactors and the catalyst quenching agent is added to the mixture prior to the last reactor.